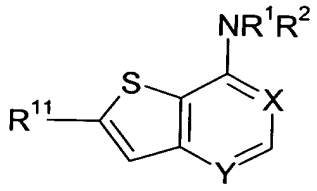
IN THE CLAIMS

Please cancel claims 2-5, 11, 15-26, 30-33 and 40-43 without prejudice to applicants' right to pursue the claimed subject matter in a later filed divisional or continuation application. Claims 27, 28 and 50-58 were canceled in applicants' March 24, 2003 Amendment filed in response to the November 22, 2003 Office Action.

Please amend claims 1, 6, 12, 13, 29, 34, 39, and 44 as follows (deletions are shown in strikethrough and additions are shown in underline).

1. (Currently Amended) A compound of the formula of formula **1**



1

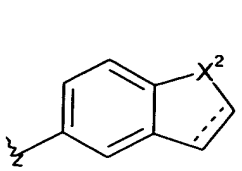
or a pharmaceutically acceptable salt, prodrug or hydrate thereof,

X is ~~N,~~ CH ~~or C(CN)~~;

Y is N~~, CH, CF, or N→O~~;

R^1 is H or C_1-C_6 alkyl;

R^2 is ~~5 to 13 membered heterocyclic, wherein said R^2 group is optionally substituted by 1 to 5 R^5 substituents,~~ a group of the formula



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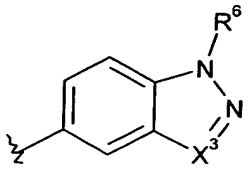

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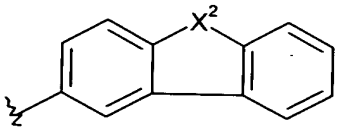

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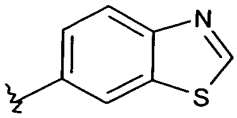

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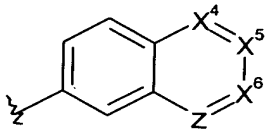
or



6

wherein X^2 is -S-, -N(R^6)- or O, and X^3, X^4, X^5, X^6, and Z is N or CH, the dashed line in formula **2** represents an optional double bond, and the above R^2 groups of formulas **2**, **4** and **6** are optionally substituted by 1 to 5 R^5 substituents and the R^2 groups of formulas **3** and **5** are optionally substituted by 1 to 3 R^5 substituents;

each R^5 is independently selected from halo, cyano, trifluoromethoxy, trifluoromethyl, $-C(O)R^8$, $-NR^6C(O)R^7$, $-C(O)NR^6R^7$, $-NR^6R^7$, $-OR^9$, $-SO_2NR^6R^7$, $-SO_2R^6$, $-NR^6SO_2R^7$, C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, $-(CH_2)_jO(CH_2)_qNR^6R^7$, $-(CH_2)_tO(CH_2)_qOR^9$, $-(CH_2)_tOR^9$, $-S(O)_j(C_1$-C_6 alkyl), $-(CH_2)_t(C_6$-C_{10} aryl), $-(CH_2)_t$(5 to 10 membered heterocyclic), $-(CH_2)_tO(CH_2)_q$(5 to 10 membered heterocyclic), $-C(O)(CH_2)_t$(5 to 10 membered heterocyclic), $-(CH_2)_jNR^7(CH_2)_qNR^6R^7$, $-(CH_2)_jNR^7CH_2C(O)NR^6R^7$, $-(CH_2)_jNR^7(CH_2)_qNR^9C(O)R^8$, $-(CH_2)_jNR^7(CH_2)_tO(CH_2)_qOR^9$, $-(CH_2)_jNR^7(CH_2)_qS(O)_j(C_1$-$C_6$ alkyl), $-(CH_2)_jNR^7(CH_2)_tR^6$, $-SO_2(CH_2)_t(C_6$-C_{10} aryl), and $-SO_2(CH_2)_t$(5 to 10 membered heterocyclic), wherein j is an integer from 0 to 2, t is an integer from 0 to 6, q is an integer from 2 to 6, the $-(CH_2)_q$- and $-(CH_2)_t$- moieties of the foregoing R^5 groups optionally include a carbon-carbon double or triple bond where t is an integer from 2 to 6, and the alkyl, aryl and heterocyclic moieties of the foregoing R^5 groups are optionally substituted by 1 to 3

substituents independently selected from halo, cyano, trifluoromethyl, $-C(O)R^8$, $-NR^6C(O)R^7$, $-C(O)NR^6R^7$, $-(CH_2)_tNR^6R^7$, $-SO_2R^6$, $-SO_2NR^6R^7$, C_1-C_6 alkyl, $-(CH_2)_t$(5 to 10 membered heterocyclic), $-(CH_2)_tO(CH_2)_qOR^9$, and $-(CH_2)_tOR^9$, wherein t is an integer from 0 to 6 and q is an integer from 2 to 6;

each R^6 and R^7 is independently selected from H, C_1-C_6 alkyl, $-(CH_2)_t(C_6$-C_{10} aryl), $-(CH_2)_t$(5 to 10 membered heterocyclic), $-(CH_2)_tO(CH_2)_qOR^9$, and $-(CH_2)_tOR^9$, wherein t is an integer from 0 to 6 and q is an integer from 2 to 6, and the alkyl, aryl and heterocyclic moieties of the foregoing R^6 and R^7 groups are optionally substituted by 1 to 3 substituents independently selected from halo, cyano, trifluoromethyl, $-C(O)R^8$, $-NR^9C(O)R^{10}$, $-C(O)NR^9R^{10}$, $-NR^9R^{10}$, C_1-C_6 alkyl, $-(CH_2)_t(C_6$-C_{10} aryl), $-(CH_2)_t$(5 to 10 membered heterocyclic), $-(CH_2)_tO(CH_2)_qOR^9$, and $-(CH_2)_tOR^9$, wherein t is an integer from 0 to 6 and q is an integer from 2 to 6, with the proviso that where R^6 and R^7 are both attached to the same nitrogen, then R^6 and R^7 are not both bonded to the nitrogen directly through an oxygen;

each R^8 is independently selected from H, C_1-C_{10} alkyl, $-(CH_2)_t(C_6$-C_{10} aryl), and $-(CH_2)_t$(5 to 10 membered heterocyclic), wherein t is an integer from 0 to 6;

each R^9 and R^{10} is independently selected from H and C_1-C_6 alkyl;

R^{11} is ~~$-C(O)NR^{12}R^{13}$, $-(CH_2)_tNR^{12}R^{13}$, $-NR^{12}C(=O)R^{13}$, $-SO_2R^{12}$, $-SO_2NR^{12}R^{13}$, $-NR^9SO_2R^{12}$, $-NR^9SO_2NR^{12}R^{13}$, $-C(=N\text{-}OR^{12})R^{13}$, $-C(=NR^{12})R^{13}$, $-NR^9C(=NR^{12})R^{13}$, $-C(=NR^{12})NR^9R^{13}$, $-NR^9C(=NR^{12})NR^9R^{13}$, $-C(O)R^{12}$ and $-CO_2R^{12}$ and wherein each R^{12} and R^{13} is independently selected from H, C_1-C_6 alkyl, $-(CH_2)_t(C_3$-C_{10} cycloalkyl), $-(CH_2)_t(C_6$-C_{10} aryl), $-(CH_2)_t$(5 to 10 membered heterocyclic), $-(CH_2)_tO(CH_2)_qOR^9$, $-(CH_2)_tOR^9$, wherein t is an integer from 0 to 6 and q is an integer from 2 to 6, and the alkyl, aryl and heterocyclic moieties of the foregoing R^{12} and R^{13} groups are optionally substituted by 1 to 3 substituents independently selected from R^5 or R^{12} and R^{13} taken together with the nitrogen to which they are attached to form a C_5-C_9 azabicyclic, aziridinyl, azetidinyl, pyrrolidinyl, piperidinyl, piperazinyl, morpholinyl, thiomorpholinyl, isoquinolinyl, or dihydroisoquinolinyl ring, wherein said C_5-C_9 azabicyclic, aziridinyl, azetidinyl, pyrrolidinyl, piperidinyl, piperazinyl, morpholinyl, thiomorpholinyl, isoquinolinyl, or dihydroisoquinolinyl ring are optionally substituted by 1 to 5 R^5 substituents, with the proviso R^{12} and R^{13} are not both bonded to the nitrogen directly through an oxygen~~ $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a C_5-C_9 azabicyclic, aziridinyl, azetidinyl,

pyrrolidinyl, piperidinyl, piperazinyl, or morpholinyl ring wherein said C_5-C_9 azabicyclic, aziridinyl, azetidinyl, pyrrolidinyl, piperidinyl, piperazinyl, or morpholinyl ring are optionally substituted by 1 to 5 R^5 substituents.

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Currently Amended) The compound of claim 1~~5~~, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a C_5-C_9 azabicyclic, aziridinyl, azetidinyl, or pyrrolidinyl ring wherein said C_5-C_9 azabicyclic, aziridinyl, azetidinyl, or pyrrolidinyl ring are optionally substituted by 1 to 5 R^5 substituents.

7. (Original) The compound of claim 6, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a C_5-C_9 azabicyclic, azetidinyl or pyrrolidinyl ring wherein said C_5-C_9 azabicyclic, azetidinyl or pyrrolidinyl ring is optionally substituted by 1 to 5 R^5 substituents.

8. (Original) The compound of claim 7, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a C_5-C_9 azabicyclic ring, wherein said C_5-C_9 azabicyclic ring is optionally substituted by 1 to 5 R^5 substituents.

9. (Original) The compound of claim 7, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached to form an azetidinyl ring, wherein said azetidinyl ring is optionally substituted by 1 to 5 R^5 substituents.

10. (Original) The compound of claim 7, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached to form a pyrrolidinyl ring, wherein said pyrrolidinyl ring is optionally substituted by 1 to 5 R^5 substituents.

11. (Canceled)

12. (Currently Amended) The compound of claim 1~~11~~, wherein said R^2 group is a group of formula **2** or **6**, wherein said formulas **2** and **6** are optionally substituted by 1 to 5 R^5 substituents.

13. (Currently Amended) The compound of claim 1, wherein said compound is selected from the group consisting of:

~~7-(2-Methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridine-2-carboxylic acid methyl-pyridin-3-ylmethyl-amide;~~

Azetidin-1-yl-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

[7-(2-Methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-pyrrolidin-1-yl-methanone;

7-(2-Methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridine-2-carboxylic acid cyclohexyl-methyl-amide;

(2-Methoxymethyl-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

7-(2-Methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridine-2-carboxylic acid methyl-(2-morpholin-4-yl-ethyl)-amide;

N-{1-[7-(2-Methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridine-2-carbonyl]-pyrrolidin-3-yl}-acetamide;

N-Ethyl-N-{1-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridine-2-carbonyl]-pyrrolidin-3-yl}-acetamide;

(3-Methylamino-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

(3-Dimethylamino-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

(6-Amino-3-aza-bicyclo[3.1.0]hex-3-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

(3-Dimethylamino-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

(2-Methoxymethyl-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

(3-Hydroxy-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

(2-Hydroxymethyl-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

(3-Methoxy-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

(3-Ethoxy-azetidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

N-Methyl-N-{1-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridine-2-carbonyl]-pyrrolidin-3-yl}-acetamide;

cyclobutanecarboxylic acid {1-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridine-2-carbonyl]-pyrrolidin-3-yl}-amide; pharmaceutically acceptable salts of said compounds; solvates of said compounds; and prodrugs of said compounds.

14. (Original) The compound of claim 13, wherein said compound is selected from the group consisting of

(2S)-(2-Methoxymethyl-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

(+/-)-N-Ethyl-N-{1-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridine-2-carbonyl]-pyrrolidin-3-yl}-acetamide;

(3S)-(3-Dimethylamino-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;

(+/-)-N-Methyl-N-{1-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridine-2-carbonyl]-pyrrolidin-3-yl}-acetamide;

(2R)-(2-Methoxymethyl-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;
(3S)-(3-Hydroxy-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;
(3R)-(3-Hydroxy-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;
(+/-)-Cyclobutanecarboxylic acid {1-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridine-2-carbonyl]-pyrrolidin-3-yl}-amide;
6-Amino-3-aza-bicyclo[3.1.0]hex-3-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone;
(3S)-(3-Methoxy-pyrrolidin-1-yl)-[7-(2-methyl-1H-indol-5-ylamino)-thieno[3,2-b]pyridin-2-yl]-methanone; pharmaceutically acceptable salts of said compounds; solvates of said compounds; and prodrugs of said compounds.

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

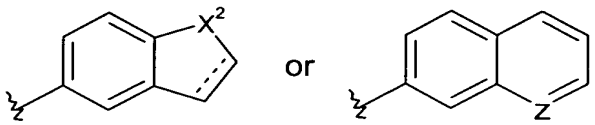
25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Currently Amended) A compound of claim 1, wherein ~~X is CH; Y is N;~~ R^1 is H; R^2 is



2 **6**

X^2 is $-N(R^6)-$, the dashed line in formula **2** represents an optional double bond, Z is CH or N and the above R^2 group of formulas **2** and **6** are optionally substituted by 1 to 5 R^5.

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Currently Amended) The compound of claim 2933, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a C_5-C_9 azabicyclic, aziridinyl, azetidinyl, or pyrrolidinyl ring wherein said C_5-

C_9 azabicyclic, aziridinyl, azetidinyl, or pyrrolidinyl ring is optionally substituted by 1 to 5 R^5 substituents.

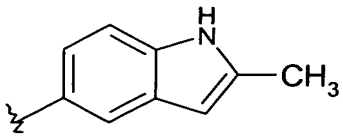
35. (Original) The compound of claim 34, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a C_5-C_9 azabicyclic, azetidinyl or pyrrolidinyl ring wherein said C_5-C_9 azabicyclic, azetidinyl or pyrrolidinyl ring is optionally substituted by 1 to 5 R^5 substituents.

36. (Original) The compound of claim 35, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a C_5-C_9 azabicyclic ring wherein said C_5-C_9 azabicyclic ring is optionally substituted by 1 to 5 R^5 substituents.

37. (Original) The compound of claim 36, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form an azetidinyl ring wherein said azetidinyl ring is optionally substituted by 1 to 5 R^5 substituents.

38. (Original) The compound of claim 37, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a pyrrolidinyl ring wherein said pyrrolidinyl ring is optionally substituted by 1 to 5 R^5 substituents.

39. (Currently Amended) A compound of claim 1, wherein ~~X is CH; Y is N;~~ R^1 is H; R^2 is



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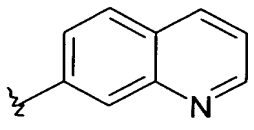

40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (Canceled)

44. (Currently Amended) The compound of claim 3943, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a C_5-C_9 azabicyclic, aziridinyl, azetidinyl, or pyrrolidinyl ring wherein said C_5-C_9 azabicyclic, aziridinyl, azetidinyl, and pyrrolidinyl ring are optionally substituted by 1 to 5 R^5 substituents.

45. (Original) The compound of claim 44, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a C_5-C_9 azabicyclic, azetidinyl or pyrrolidinyl ring wherein said C_5-C_9 azabicyclic, azetidinyl or pyrrolidinyl ring are optionally substituted by 1 to 5 R^5 substituents.

46. (Original) The compound of claim 45, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a C_5-C_9 azabicyclic ring, wherein said C_5-C_9 azabicyclic ring is optionally substituted by 1 to 5 R^5 substituents.

47. (Original) The compound of claim 46, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form an azetidinyl ring, wherein said azetidinyl ring is optionally substituted by 1 to 5 R^5 substituents.

48. (Original) The compound of claim 47, wherein R^{11} is $-C(O)NR^{12}R^{13}$ wherein R^{12} and R^{13} taken together with the nitrogen to which they are attached form a pyrrolidinyl ring, wherein said pyrrolidinyl ring is optionally substituted by 1 to 5 R^5 substituents.

49. (Original) A pharmaceutical composition for the treatment of a hyperproliferative disorder in a mammal which comprises a therapeutically effective amount of a compound of claim 1 and a pharmaceutically acceptable carrier.

50. (Canceled)

51. (Canceled)

52. (Canceled)

53. (Canceled)

54. (Canceled)

55. (Canceled)

56. (Canceled)

57. (Canceled)

58. (Canceled)

59. (Original) A method of treating a hyperproliferative disorder in a mammal which comprises administering to said mammal a therapeutically effective amount of a compound of claim 1.

60. (Original) The method of claim 59 wherein said hyperproliferative disorder is cancer.

61. (Original) The method of claim 60 wherein said cancer is brain, lung, squamous cell, renal, kidney, ovarian, bladder, gastric, pancreatic, breast, head, neck, oesophageal, prostate, colorectal, gynecological or thyroid cancer.

62. (Original) The method of claim 60 wherein said hyperproliferative disorder is noncancerous.

63. (Original) The method of claim 62 wherein said disorder is a benign hyperplasia of the skin or prostate.

64. (Original) A method for the treatment of a hyperproliferative disorder in a mammal which comprises administering to said mammal a therapeutically effective amount of a compound of claim 1 in combination with an anti-tumor agent selected from the group consisting of mitotic inhibitors, alkylating agents, anti-metabolites, intercalating antibiotics, growth factor inhibitors, cell cycle inhibitors, enzymes, topoisomerase inhibitors, biological response modifiers, anti-hormones, and anti-androgens.

65. (Original) A method of treating pancreatitis or kidney disease in a mammal which comprises administering to said mammal a therapeutically effective amount of a compound of claim 1.

66. (Original) A method of preventing blastocyte implantation in a mammal which comprises administering to said mammal a therapeutically effective amount of a compound of claim 1.

67. (Original) A method for treating a disease related to vasculogenesis or angiogenesis in a mammal which comprises administering to said mammal a therapeutically effective amount of a compound of claim 1.

68. (Original) The method of claim 67, wherein said disease is selected from the group consisting of tumor angiogenesis, chronic inflammatory disease such as rheumatoid arthritis, atherosclerosis, skin diseases such as psoriasis, excema, and scleroderma, diabetes, diabetic retinopathy, retinopathy of prematurity, age-related macular degeneration, hemangioma, glioma, melanoma, Kaposi's sarcoma and ovarian, breast, lung, pancreatic, prostate, colon and epidermoid cancer.

The above amendment adds no new matter to this application.